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     (FILE 'HOME' ENTERED AT 09:55:08 ON 10 MAY 2004)

     FILE 'MEDLINE, CAPLUS, BIOSIS' ENTERED AT 09:55:29 ON 10 MAY 2004
L1          3166 S LACTOBACILLUS AND DELBRUECKII
L2            64 S L1 AND (MODIFICATION OR MODIFY OR TRANSFORM OR INTEGRATE)
L3            30 S L2 AND (GENE OR GENETIC OR CHROMOSOME)

     FILE 'MEDLINE, CAPLUS, BIOSIS, SCISEARCH' ENTERED AT 09:58:34 ON 10 MAY
     2004
L4            43 S L3
L5             3 S L4 AND REVIEW
L6             2 S L4 AND (DIFFICULT OR CHALLENGE OR OBSTACLE OR DIFFICULTIES O
L7            19 S GENETIC MODIFICATION AND LACTOBACILLI
L8            11 DUP REMOVE L7 (8 DUPLICATES REMOVED)
L9         39616 S CHROMOSOME AND (INSERTION OR INSERT OR INTEGRATE OR INTEGRATI
L10           22 S L9 AND LACTOBACILLI
L11            7 S L10 AND DELBRUECKII
L12            2 DUP REMOVE L11 (5 DUPLICATES REMOVED)

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WO 2000-FR2565 W 20000915

AB The invention concerns a method for modifying the chromosomal genetic information of Lactobacillus **delbrueckii**, using a conditional integrator plasmid. The plasmid contains a θ replication system of plasmid **pIP501** or a related plasmid. Plasmid **pIP501** is stable and can replicate in L. **delbrueckii** at 35-37° but cannot replicate and is unstable at 42°. The method for modifying the L. **delbrueckii** chromosome comprises (a) insertion of a DNA sequence capable of integrating into the bacterial chromosome and a selectable marker into the thermosensitive integrator plasmid, (b) introduction of this plasmid into the bacteria and multiplication of the transformants under conditions favoring plasmid replication and maintenance, (c) multiplication of selectable marker-expressing bacteria under conditions nonpermissive for plasmid replication and stability, and, optionally, (d) recovery of bacteria expressing the selectable marker from the previous step. Sequences capable of inserting into the bacterial chromosome include transposons and insertion sequences such as IS1223 and IS1201. The invention also concerns integrator plasmids for use in implementing said method. Plasmids of the invention include pVI49, containing IS1223, and pVI52, containing IS1201.

L2 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:229062 CAPLUS
DOCUMENT NUMBER: 134:263403
TITLE: Lactobacillus **delbrueckii** strain, its use for screening plasmids, and plasmids so obtained
INVENTOR(S): Serror, Pascale; Fremaux, Christophe; Benbadis, Laurent; Maguin, Emmanuelle
PATENT ASSIGNEE(S): Institut National de la Recherche Agronomique (INRA), Fr.; Compagnie Gervais Danone; Rhodia Food
SOURCE: PCT Int. Appl., 30 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001021818	A1	20010329	WO 2000-FR2564	20000915
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
FR 2798669	A1	20010323	FR 1999-11683	19990917
FR 2798669	B1	20040220		
EP 1216305	A1	20020626	EP 2000-964296	20000915
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, MC, IE, SI, LT, LV, FI, RO, MK, CY, AL				

PRIORITY APPLN. INFO.: FR 1999-11683 A 19990917
WO 2000-FR2564 W 20000915

AB The invention concerns a novel strain of Lactobacillus **delbrueckii** called VI104 which may be used to screen for plasmids useful for transformation of Lactobacillus. Preferred plasmids identified with this strain include pJK650, pGB305Δ, and pLEM415.

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1996:239443 CAPLUS
DOCUMENT NUMBER: 124:308582
TITLE: Molecular tools for the **genetic modification** of dairy **lactobacilli**
AUTHOR(S): Klein, Juergen R.; Ulrich, Christof; Wegmann, Udo; Meyer-Barton, Elke; Plapp, Roland; Henrich, Bernhard
CORPORATE SOURCE: Fachbereich Biologie, Universitat Kaiserslautern, Kaiserslautern, D-67653, Germany
SOURCE: Systematic and Applied Microbiology (1996), 18(4), 493-503
CODEN: SAMIDF; ISSN: 0723-2020
PUBLISHER: Fischer
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A **review** and discussion with 52 refs. The possibility that starter strains of lactic acid bacteria may be deliberately endowed with desired properties by the use of mol. techniques is an attractive perspective for the dairy industry. To contribute to the development of appropriate **genetic modification** systems for **lactobacilli**, we tested the accessibility of these bacteria to electrotransformation, and we designed a strategy for the construction and use of food-grade plasmid vectors. Successful electroporation was achieved with two dairy strains of **Lactobacillus** casei and Lb. **delbrueckii** ssp. lactis. Aiming at the construction of vectors, replicons of cryptic plasmids from various starter **lactobacilli** were identified and characterized on the mol. and functional levels. To provide the resulting vectors with food-grade markers, a number of peptidase and transport **genes** of the proteolytic system of Lb. **delbrueckii** ssp. lactis DSM7290 were isolated and sequenced, and features of the resp. **gene** products were investigated. Over expression of two of these peptidase **genes** in **Lactobacillus** had no effects on cell growth, but altered the composition of the growth medium.

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